Review Comments on
NPDES Permit Fact Sheet/Permit Evaluation Report
Prepared by Oregon Department of Environmental Quality
November 23, 2009

Submitted December 31, 2009

The following provides EPA's review comments on the following documents:

- "NPDES Permit Fact Sheet/Permit Evaluation Report" prepared by Oregon Department of Environmental Quality (DEQ) November 23, 2009, 33 pages.

The purpose of the review was to provide input and comment on storm water and wastewater discharges. The review has slight bias towards managing or reducing the potential recontamination of sediments in the Portland Harbor Superfund Cleanup Site. These comments address the Fact Sheet/Permit Evaluation Report (FS/PER) for the Evraz Oregon Steel Mills (EOSM) site.

General Comments FS/PER

1. The FS/PER describes that the primary changes to the draft permit are related to toxic monitoring requirements and semi-annual monitoring of priority metals.

2. The FS/PER inconsistently refers to the site as Evraz Oregon Steel, Oregon Steel Mills (OSM) and EOSM. Please reference the site consistently throughout the document.

3. The Draft Permit should be reviewed for presentation of units and should follow a consistent approach such as English (Metric).

Specific Comments FS/PER

1. **Page 3, page 4, and page 5.** Figures 1, 2 and 3 should have titles, show the locations of Outfalls #1 and #2, and show the storm water and wastewater catchment areas to each. The outfall destination of each of the plant process areas should be shown (i.e. which processes go where). The storm water catchments are needed to consider which storm water from what source and how much could be incidentally added to the process wastewater.

2. **Pages 5-7.** Locations of the Scrap Yard, and Vehicle Maintenance & Ancillary Shop, and all of the activities associated with the site processes and potential wastewater source listed on pages 5-7 should be shown on Figure 2.

3. **Pages 5-7.** Locations of Water Treatment Facility and other potentially pollutant-producing areas that could come in contact with stormwater should be shown on Figure 2 (or Figure 3 to differentiate from process water sources).

4. **Page 9.** Section 3.1 Please use consistent format for units Metric or English. Most of the report uses English only units.

5. **Page 9.** Section 3.2 refers to "about 3 gpm" (or ~4,320 gpd) return flow from the solids separator at Outfall 002, however Figure 5 shows 1,000 gpd reject flows at Outfall 002. Please correct/resolve the inconsistency.

6. **Page 10.** Figure 5 is hard to interpret because of the inconsistent use of units which include: gpd, gph, MGD, mg/mo, M^3/min, L/min. Consistent units should be used. Also, tank and reservoir storage should be noted. The process water flow rates on Figure 5 could be summarized in a separate table, should indicate the possible volume/rate, and source of water that goes to treatment. The objective is to provide system data supporting the permit discharge volume, potential sources, and needed treatment flow rates, and most importantly, system processes/locations with potential opportunities for source control.

7. **Page 12.** Spiral Pipe Mill and Pipe Coating Mill references 0.37 MGD of wastewater but is not shown on Figure 5.

8. **Page 12, Section 3.3.2.** Non-contact Cooling Water Systems references use of Biocides and 12.5% sodium hypochlorite to control biological growth. Please provide the specific biocides and the quantity and fate of these flows – Outfall #001? Biocides and sodium hypochlorite have a high potential for impacting toxicity tests.

9. **Page 13, Paragraph #3.** This section describes that formerly higher rate *batch* discharges (2,500 to 3,500 gpm) have been reduced to a 550 gpm discharge rate. Does this lower rate correspond to a smaller volume of discharge, or is it a lower *continuous* discharge rate of the same volume? How does the smaller diameter (8-inch) outfall enhance dilution/mixing? Is it a diffuser? Where is it relative to the location of the 30-inch outfall? How have the changes in discharge rate and configuration improved dilution and loading rates if it is the same volume of discharge?

10. **Page 13, Paragraph #5.** As noted in the general comments, the draft permit does not cover storm water discharges from the facility and only includes incidental storm water that "is mixed with the wastewater discharged from outfall 001."

11. **Page 15, Paragraph #2.** Change reference from OSM to EOSM.

12. **Page 19, paragraph #1, paragraph #3 and Table 6 heading.** The draft permit references Outfall 004 several times previously as having been renamed as Outfall 002.

13. **Page 19, Paragraph #2**. Show the location of the internal monitoring point on Figure 5. What is the rationale for this location? Does exceeding these limits result in an action, process change, or treatment response? Also, the text should say "limits" instead of "limitations."

14. **Page 20.** Table 8 is unnecessary (only one entry) and the heading is confusing. Replace with a sentence: "*Based on the applicable EOSM production rate of 4,536,000 kg/day, 40 CFR Subpart G provides the technology-based effluent limitations presented in Table 9 [now 8] representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BCT).*"

15. **Page 21, Table 10.** What flow rate is used to calculate the "Oil & Grease" limit of 346 lbs/day? The existing NPDES permit effluent limit for "Oil & Grease" is 15 mg/L, daily maximum flow is 0.79 MGD yielding an "Oil & Grease" limit of 99 lbs/day (15 mg/L x 0.79 MGD x 8.34 conversion factor = 99 lbs/day).

16. **Page 21, Paragraph #3.** First sentence says the internal monitoring point is Outfall 002, which is inconsistent with page 19, paragraph #2.

17. **Page 22, 9.1.4 Total Dissolved Solids.** Specify that the total dissolved solids (TDS) effluent limit of 1136 mg/L is a monthly average. What is the ODEQ's basis for authorizing this TDS effluent limit in the 2004 NPDES permit?

18. **Page 23, Paragraph #3.** Change reference from OSM to EOSM.

19. **Page 25, Paragraph #3.** The reasonable potential analysis references Attachments B and C. These attachments would benefit from some additional discussion or explanation.

20. **Page 25, Paragraph #4.** EPA agrees with retaining the limits for chlorine. The reasonable potential analysis should consider the use of Biocides and sodium hypochlorite in the noncontact cooling water system.

21. **Page 25, Paragraph #5 Last sentence**. Change reference from Evraz to EOSM. What is the monitoring proposed to allow a more robust analysis of effluent arsenic (especially inorganic)? The proposed monitoring requirements in Table 13 include only total metals two times per year.

22. **Page 26, Paragraph #3.** Last sentence discusses "the existing visual monitor turbidity in the river on a weekly basis" needs to be re-worded and explained. Turbidity could be an indicator of potential constituents that are causing sediment recontamination.

23. **Page 28, Paragraph #1.** The emergency and storm event conditions that would allow higher discharge rates should be defined in this fact sheet and be consistent with the draft permit. The way it is worded, storm events (without any limit, low, or high) would allow discharge without any consideration of how the storm flow would change or influence the amount of water that is in the system and how it affects the system's capacity. In other words, as written the EOSM facility could discharge during a storm regardless of the influence on the "incidental" storm to water quantity in the system. Further, it would reduce the incentive to remove processes/industrial activity from storm water contact and reduce the amount of incidental storm water in process

water. By adding (or not limiting) storm water to process water, the volume of discharge is increased which would increase the loading of constituents from process water sources.

24. **Page 28, 11.4.1 Monitoring Requirements.** The monitoring requirements for Outfall 002 and the internal monitoring point are not clearly presented. Tables 13 and 14 present monitoring requirements for Outfall 001 only. The 2004 permit monitoring requirements are referenced.

25. **Attachment B.** The Aquatic Life Reasonable Potential Analysis is based on one sample for five of the eight parameters of concern. The Attachment B table would benefit from additional documentation regarding the basis of the data used in the analysis and the assumptions implicit in the analysis. For example, the "High Conc." column says "See IMD" but no reference is provided. The "Coef. of Variance" column uses 0.60 for most of the parameters. This is likely a default value for small sample sizes but should be documented as such. Parameters should be identified as Total Recoverable or Dissolved. Significant figures are inconsistent for concentration values presented.

26. **Attachment C.** The Human Health Reasonable Potential Analysis is based on one sample for four of the five parameters of concern. See comments on Attachment B (above) regarding IMD, CVs and significant figures. A footnote defining "*" should be provided.